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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,884	09/29/2003	Kelly Shoemake	005242.00133	5371
22907	7590	04/14/2005	EXAMINER	
BANNER & WITCOFF 1001 G STREET N W SUITE 1100 WASHINGTON, DC 20001			MATZEK, MATTHEW D	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/671,884	<b>Applicant(s)</b> SHOEMAKE ET AL.	
	<b>Examiner</b> Matthew D. Matzek	<b>Art Unit</b> 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 14-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>all</u> . | 6) <input type="checkbox"/> Other: _____  |

*22*

***Election/Restrictions***

**DETAILED ACTION**

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6, drawn to a binder composition, classified in class 525, subclass various.
- II. Claims 7-13, drawn to a fiber mat with a binder, classified in class 442, subclass 327.
- III. Claims 14-20, drawn to the process of making a fiber mat, classified in class 427, subclass various.

The inventions are distinct, each from the other because of the following reasons:

- 1. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a binder and the final product may be used as insulation. The inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either

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instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the binder formulation may be applied to the fibers prior to their dispersion. This constitutes a materially different process.

3. Inventions III and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the binder formulation may be applied to the fibers prior to their dispersion. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Joseph Skerpon on 4/6/2005 a provisional election was made with traverse to prosecute the invention of the fiber mat with binder, claims 7-13.

Affirmation of this election must be made by applicant in replying to this Office action. Claims

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1-6 and 14-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Belmares et al. (US PGPub 2003/0099850).

8. Belmares et al. disclose a low formaldehyde emission coating from formaldehyde-based resins applied to various substrates (Abstract). The applied publication teaches that the disclosed coating comprises a formaldehyde resin and a polyamide scavenger. The formaldehyde resin may be urea-formaldehyde and the polyamide scavenger may be soy protein (para. 11). The effective range of the polyamide scavenger is from about 5 to about 50% (para. 23). The disclosed composition may be applied to fiberglass fibers (para. 15).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belmares et al. in view of Trocino (WO 01/59026). The publication of Belmares et al. has been previously disclosed, but is silent as to the form of soy protein to be used.

10. Trocino discloses a vegetable protein-based adhesive composition comprising soy protein made from soy meal (soy flour) (Abstract). Example 1 teaches a binder formulation comprising soymeal and urea-formaldehyde.

11. One of ordinary skill in the art at the time of the invention would have found it obvious to have used the soy meal (flour) of Trocino to make the adhesive binder of Belmares et al. The skilled artisan would have been motivated by the fact that soy meal is low in cost and readily available.

12. Claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belmares et al. in view of Trocino and in further view of Chang et al. (WO 98/34885). The publications of Belmares et al. and Trocino have been previously disclosed, but are silent as to the incorporation of water-soluble styrene-maleic anhydride.

13. Chang et al. disclose an aqueous binder comprising urea-formaldehyde resin modified with a water-soluble styrene-maleic anhydride copolymer for use in the preparation of fiberglass mats (Abstract and page 3, lines 5-10).

14. On of ordinary skill in the art at the time of the invention would have found it obvious to have made the adhesive binder of Belmares et al. with the water-soluble styrene-maleic andhydride copolymer of Chang et al. The skilled artisan would have been motivated by the

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desire to impart the article of Belmares et al. with enhanced tensile properties (page 3, lines 27-30 Chang et al.).

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Tinkelenberg (EP 0013447).

16. Tinkelenberg discloses a reduced formaldehyde-emission composite comprising a binder of urea-formaldehyde resin and 5-10% protein weight (Abstract, page 2, lines 29-31 and claim 4). The binder may be applied to cellulosic fibers (page 4, lines 26-30).

17. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang et al. (EP 1176174).

18. Tang et al. disclose a degradable material comprising plant fiber and an adhesive material (Abstract). The adhesive material comprises a modified urea-formaldehyde and at least one water-soluble macro-molecular material (para. 3). Said macro-molecular material may be soybean glue and the ratio between the weight of the modified urea-formaldehyde resin and the water-soluble macro-molecular material is between 10:0.5 to 10:35 (paras. 17 and 18). This results in the water-soluble macro-molecular material being between ~4.76 and ~77.8% by weight of the overall binder composition (calculation done by Examiner).

***Information Disclosure Statement***

19. All references cited on the information disclosure statements (IDS) provided by Applicant have been considered by Examiner. The references provided on the International

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Search Reports that have not been cited by Examiner in this Office Action have been found to either not read on the instant claims or are directed to non-elected claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423.

The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm

*MDM*

*Elizabeth M. Cole*  
ELIZABETH M. COLE  
PRIMARY EXAMINER